

CLAIMS OF THE APPLICATION:

1. (Canceled)
2. (Currently amended) ~~The novel crystalline~~ Crystalline form VI of Donepezil hydrochloride ~~of claim 1~~ having an X-ray powder diffraction pattern with peaks ~~(according to substantially as depicted in Figure-1)~~ around 9.742, 11.528, 12.737, 14.220, 14.402, 14.645, 16.176, 16.649, 18.168, 19.303, 20.543, 21.032, 21.491, 22.653, 23.128, 23.837, 24.138, 24.791, 25.152, 25.969, 26.748, 27.272, 27.569, 28.782, 29.937, 30.762, 31.358, 31.956, 32.667, 33.803, 36.272 two-theta degrees.
3. (Currently amended) ~~The novel crystalline~~ Crystalline form VI of Donepezil hydrochloride according to claim 4 2 having an identified characteristic Infrared bands spectrum ~~(according to substantially as depicted in Figure-2)~~ around 558.78, 588.84, 607.87, 649.42, 706.31, 749.77, 764.95, 783.81, 810.93, 861.44, 897.21, 927.67, 950.37, 982.24, 1035.44, 1073.41, 1102.41, 1120.94, 1223.44, 1266.49, 1313.99, 1367.83, 1424, 1456.23, 1501.51, 1589.30, 1697.55, 2512.14, 2847.03, 2932.79, 3450.67 cm^{-1} .
4. (Currently amended) ~~The novel crystalline~~ Crystalline form VI of Donepezil hydrochloride according to claim 4 2 having a thermogravimetric analysis thermogram substantially in accordance with Figure (3).
5. (Currently amended) ~~The novel crystalline~~ Crystalline form VI of Donepezil hydrochloride according to claim 4 2 having a Differential Scanning Calorimetry thermogram ~~(according to substantially as depicted in Figure-4)~~ which exhibits a significant endo peak around -229.85° C.
6. (Currently amended) A process for preparing the ~~novel~~, crystalline form (VI) of Donepezil hydrochloride of claim 2, which comprises;
 - a. dissolution of the Donepezil free base ~~(which is prepared according to example 3 of our earlier patent application having the reg.No. 555/MAS/02 which is under process at IPO office India)~~ in a suitable alcoholic solvent at 60 to 65° C., wherein the said alcoholic solvent may be selected from the group comprising of methanol, ethanol, propanol, and butanol, preferably the said solvent is methanol;

b. reacting the solution of step (a) with an HCl source at 25 to 35° C. to afford the Donepezil hydrochloride ~~of crystalline form VI, where the HCl may be HCl gas purged in~~ ~~etheral solvents such as isopropyl ether HCl, ethylether HCl, methyl tertiary butyl ether HCl, preferably the HCl source may be HCl gas dissolved in isopropyl ether, more preferably stoichiometric amount of HCl gas dissolved in isoprpylether;~~

c. diluting the reaction mass of step (b) with an ether ~~etheral solvent, such as diethyl ether, methyl tert-butyl ether, diisopropyl ether, preferably diisopropyl ether;~~

d. stirring the reaction mass of step (c) at 25 to 35° C for a period of 0.5 to 10 hours ~~preferably for 2 to 3 hours;~~

e. filtration of the separated solid from step (d) by conventional methods; and

f. drying the ~~resulted~~ crystalline solid from step (e) at 50-55° C for a period of 5-8 hours under reduced pressure to afford ~~the novel~~ crystalline form-VI of Donepezil hydrochloride;

7. (Canceled)

8. (New) A process for preparing crystalline form VI of donepezil hydrochloride of claim 2, comprising combining a solution comprising donepezil hydrochloride and an alcohol with an ether, and separating donepezil hydrochloride form VI.

9. (New) The process of claim 8, wherein an alcohol comprises methanol, ethanol, propanol, or butanol.

10. (New) The process of claim 8, wherein an alcohol comprises methanol.

11. (New) The process of claim 8, wherein an ether comprises diethyl ether, methyl tert-butyl ether, or diisopropyl ether.

12. (New) The process of claim 8, wherein an ether comprises diisopropyl ether.